

### SECTION III—REMARKS

This amendment is submitted in response to the Office Action mailed June 28, 2004. Claims 18, 19, 46, 51, 54 and 59 are amended, and claims 18-28 and 46-61 remain pending in the application. Applicants respectfully request reconsideration of the application and allowance of all pending claims in view of the above amendments and the following remarks.

#### Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 18, 25, 46 and 54 as anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,236,735 to Bjorner *et al* ("Bjorner"). Applicants respectfully traverse the Examiner's rejections. A claim is anticipated only if each and every element, as set forth in the claim, is found in a single prior-art reference. MPEP § 2131; *Verdegaal Bros. v. Union Oil of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). As explained below, Bjorner cannot anticipate these claims because it does not disclose, teach or suggest every element and limitation recited therein.

Bjorner discloses a two-camera system for locating and storing indicia on conveyed items. As shown in Figure 1, the system includes a conveyor 12 that first moves a parcel 14 through the field of view of a low resolution CCD camera 16 and then through the field of view of a high-resolution CCD camera 22. The low resolution camera 16 is a low resolution, monochrome, 256 pixel line-scan type camera (col. 7, lines 3-6), while the high resolution camera 22 is a monochrome, pixel line-scan type camera (col. 7, lines 20-23). A belt encoder 26 provides a signal indicating the speed of the conveyor 12 to a video processor 28 and to the high resolution camera 22. The belt encoder 26 is a standard belt driven opto-mechanical encoder (col. 8, lines 1-4). As shown in Figure 4, the belt encoder 26 supplies a signal indicating the speed of the conveyor 12 to the video processor 28 and the high resolution camera 22, while the video processor 28 provides a power supply 44 and a line clock signal 45 to the low resolution camera 16. Cycles of the low resolution camera 16 (*i.e.*, exposures of the line of CCD pixels comprising the low resolution camera 16) are triggered by line clock signal 45. Each cycle captures a row of the image of a fiduciary mark that is illuminated by ultraviolet (UV) light as it moves past the low

resolution camera 16. An image of the fiduciary mark is captured, one line at a time, in a 256-bit by one-bit FIFO low-resolution line buffer 56 (col. 10, lines 1-3, 5-9). In this manner, the one-dimensional line images captured by the low-resolution camera 16 are assembled by the host computer 30 into two-dimensional images (col. 9, lines 40-42).

The high-resolution camera 22 functions similarly to the low-resolution camera 16. The high-resolution camera captures one-dimensional images of text in the region of interest 40. The high-resolution camera does not capture images of the fiduciary mark, which is only visible when illuminated by UV light. The video signal 54 is transmitted from the high resolution camera 22 to the host computer 30 where it is initially captured, one line at a time, in a line buffer 68. The host computer 30 sequentially reads the high resolution buffer 68 and creates and stores a two-dimensional image of text in the region of interest 40 in the general purpose memory 58 of the host computer 30 (col. 11, lines 29-32, 35-40). As with the low-resolution camera 16, then, the one-dimensional line images of text captured by the high-resolution camera 22 are assembled by the host computer 30 into two-dimensional images (col. 9, lines 40-42).

Claim 18, as amended, recites an article of manufacture combination comprising a machine-readable medium that provides instructions, including instructions to “process a single received trigger signal communicated from a triggering device in response to a location of a component in an automated identification system,” capture multiple images of at least a portion of a surface of the component in response to the received trigger signal, “the multiple images comprising a series of images including a first two-dimensional image and at least one subsequent two-dimensional image,” store the multiple images in a memory, and “process the multiple images to identify and read a symbol code, if any, contained within at least one or a combination of two or more of the multiple images.” Bjorner does not disclose, teach or suggest an article of manufacture combination including these limitations. First, in Bjorner the belt encoder provides multiple trigger signals to the cameras—one trigger signal for each one-dimensional line image to be captured. Bjorner therefore cannot disclose, teach or suggest a combination including

instructions to “process a single received trigger signal communicated from a triggering device in response to a location of a component in an automated identification system.”

Next, Bjorner teaches that the cameras capturing the images should be line-scan cameras, which capture *one-dimensional* images, not *two-dimensional* images. Bjorner therefore cannot teach a method including capturing multiple images, “the multiple images comprising a series of images including a first two-dimensional image and at least one subsequent two-dimensional image.” Also, in Bjorner the two cameras do not capture images of the same thing: the low-resolution camera captures one-dimensional images of a fiduciary mark but no text, while the high-resolution camera captures one-dimensional images of text but no fiduciary mark. Bjorner therefore cannot disclose, teach or suggest a combination including instructions to “capture multiple images of at least a portion of a surface of the component in response to the received trigger signal.”

Finally, Bjorner discloses a system for optical character recognition (OCR)—that is, for automated capture and interpretation of plain text. It does not disclose teach or suggest the identification, reading or decoding of symbol code, and therefore cannot disclose, teach or suggest a combination including instructions to “process the multiple images to identify and read a symbol code, if any, contained within at least one or a combination of two or more of the multiple images.” For the reasons above, Applicants submit that Bjorner cannot anticipate claim 18 because it does disclose, teach or suggest every element and limitation of the claim, and respectfully request withdrawal of the rejection and allowance of the claim.

Regarding claim 25, if an independent claim is allowable then any claim depending therefrom is also allowable. MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 18 is in condition for allowance. Applicants submit that claim 25 is therefore allowable by virtue of its dependence on an allowable independent claim, as well as by virtue of the features recited therein. Applicants therefore respectfully request withdrawal of the rejection and allowance of the claim.

Claim 46, as amended, recites a method combination including “receiving a single trigger signal communicated from a triggering device” in response to a location of a

component in an automated identification system, capturing multiple images of at least a portion of a surface of the component in response to the trigger signal, “the multiple images comprising a series of images including a first two-dimensional image and at least one subsequent two-dimensional image, wherein capturing the multiple images comprises capturing at least one of the multiple images via an external camera coupled to the image system,” and “processing the multiple images to identify and read a symbol code, if any, contained within at least one or a combination of two or more of the multiple images.” By analogy to the discussion above for claim 18, Bjorner does not disclose, teach or suggest a method combination including the recited limitation. Applicants submit that Bjorner therefore cannot anticipate claim 46, and respectfully request withdrawal of the rejection and allowance of the claim.

Claim 54, as amended, recites a method combination including “receiving a single trigger signal communicated from a triggering device” in response to a location of a component in an automated identification system, capturing multiple two-dimensional images of at least a portion of a surface of the component in response to the trigger signal, “the multiple two-dimensional images comprising a series of images including a first image and at least one subsequent image, wherein capturing the multiple two-dimensional images comprises capturing at least one of the multiple two-dimensional images via an external camera coupled to the image system,” and “processing the multiple two-dimensional images to identify and read a symbol code, if any, contained within at least one or a combination of two or more of the multiple two-dimensional images.” By analogy to the discussion above for claim 18, Bjorner does not disclose, teach or suggest a method combination including the recited limitation. Applicants submit that Bjorner therefore cannot anticipate claim 54, and respectfully request allowance of the claim.

#### Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 19-24, 51-53 and 59-61 under 35 U.S.C § 103(a) as obvious in view of, and therefore unpatentable over, various combinations of Bjorner, U.S. Patent No. 5,770,841 to Moed *et al* (“Moed”) and U.S. Patent No. 6,560,741 to Gerety *et al* (“Gerety”). Specifically, the Examiner rejected claims 19-24 as obvious over Bjorner in

view of Moed, and rejected claims 51-53 and 59-61 as obvious over Bjorner in view of Gerety.

As to claims 19-24, Applicants respectfully traverse the Examiner's rejections. If an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is also non-obvious. MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 18 is in condition for allowance. Applicants respectfully submit that claims 19-24 are therefore allowable by virtue of their dependence on an allowable independent claim, as well as by virtue of the features recited therein. Applicants therefore respectfully request withdrawal of the rejections and allowance of these claims.

As to claims 51-53 and 59-61, Applicants also traverse the Examiner's rejections. To establish a *prima facie* case of obviousness, the Examiner must establish that three criteria are met: (1) the prior art references must teach or suggest all the claim limitations; (2) some suggestion or motivation to combine the references must be found in the prior art; and (3) there must be a reasonable expectation of success. MPEP § 2143. As explained below, the Examiner has not established a *prima facie* case of obviousness because criteria (1) and (2) have not been met.

Claim 51, as amended, recites an apparatus combination including an image sensor configured to capture multiple images of at least a portion of a surface of a component in response to a single trigger signal in an automated identification system, "the multiple images comprising a series of images including a first two-dimensional image and at least one subsequent two-dimensional image," and "a processor, coupled to the memory, to process the multiple images to identify and read a symbol code, if any, contained within at least one or a combination of two or more of the multiple images." The Examiner concedes that Bjorner fails to teach a single image sensor configured to capture multiple images, a display, and that the image sensor is a metal oxide semiconductor. The Examiner alleges, however, that these elements are disclosed in Gerety, and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Bjorner and Gerety to arrive at the claimed invention.

Applicants respectfully disagree. As discussed above for claim 18, Bjorner does not disclose, teach or suggest an apparatus combination including capture of multiple images in response to a single trigger signal, does not disclose capture of multiple two-dimensional images, and does not disclose the identification, reading or decoding of a symbol code. Gerety similarly does not disclose the claimed combination because, among other things, it does not disclose, teach or suggest capture of multiple images in response to a single trigger signal. Bjorner and Gerety, when combined, therefore do not disclose every element and limitation of the claim, and element (1) of the Examiner's *prima facie* case is not met.

Even if, purely for the sake of argument, Bjorner and Gerety together did disclose every element and limitation of the claim, they would still not obviate the claim because there is no motivation to combine the references. Bjorner, in fact, teaches away from the use of any two-dimensional images because it teaches that the amount of data collected by its cameras should be minimized to reduce the processing time for each package passing by on a conveyor belt. Since two-dimensional images include substantially more data than one-dimensional images, Bjorner cannot teach the capture of two-dimensional images because this would be contrary to its stated purpose of minimizing the amount of data collected. Since Bjorner teaches away from combination with Gerety, the references cannot be combined as attempted by the Examiner, and element (2) of the Examiner's *prima facie* case is not met. For the above reasons, Applicants submit that Bjorner and Gerety cannot obviate the claim and respectfully request withdrawal of the rejection and allowance of the claim.

As to claims 52-53, if an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is also non-obvious. MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 51 is in condition for allowance. Applicants respectfully submit that claims 52-53 are therefore allowable by virtue of their dependence on an allowable independent claim, as well as by virtue of the features recited therein. Applicants therefore respectfully request withdrawal of the rejections and allowance of these claims.

Claim 59, as amended, recites an apparatus combination including “an image sensor configured to capture multiple two-dimensional images of at least a portion of a surface of a component in response to a single trigger signal in an automated identification system, the multiple two-dimensional images comprising a series of images including a first image and at least one subsequent image” and “a processor, coupled to the memory, to process the multiple images to identify and read a symbol code, if any, contained within at least one or a combination of two or more of the multiple images.” By analogy to the discussion above for claim 51, Bjorner and Gerety cannot obviate the claim because the combined references do not disclose every element and limitation of the claim and because neither reference suggests a combination with the other. Applicants submit that claim 59 is therefore in condition for allowance and respectfully request withdrawal of the rejection and allowance of the claim.

As to claims 60-61, if an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is also non-obvious. MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 59 is in condition for allowance. Applicants respectfully submit that claims 60-61 are therefore allowable by virtue of their dependence on an allowable independent claim, as well as by virtue of the features recited therein. Applicants therefore respectfully request withdrawal of the rejections and allowance of these claims.

#### Conclusion

Given the above amendments and accompanying remarks, all claims pending in the application are in condition for allowance. If the undersigned attorney has overlooked a teaching in any of the cited references that is relevant to allowance of the claims, the Examiner is requested to specifically point out where such teaching may be found. Further, if there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the undersigned attorney at (206) 292-8600.

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Respectfully submitted,

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